

### Remarks

The specification stands objected to pursuant to 37 CFR §1.75(d) regarding disclosure explicitly stating the structure of claim elements in means plus function format. Claim 1 has been amended to eliminate the claim elements "coupling means" and "means for directing bypass". The mechanical description of the presently claimed "apparatus for directing bypass blood flow" is provided in Claim 1.

The "flow restricting means" element recited in Claims 8, 9, and 12 is described in detail at page 8 line 8-page 9 line 7 of the application as originally filed, and is referred to in the specification as "flow restricting means 22". This reference number is found in Figures 2, 5, and 6 of the application as originally filed, with element 22 explicitly representing the flow restricting means recited in the pending claims. Applicants respectfully submit, therefore, that the remaining claim elements identified by the Examiner as requiring explicit structural explanation are indeed explicitly described in the pending specification. Withdrawal of the objections to the specification is therefore warranted.

Claims 1-3 and 5-19 have been amended. Claim 4 has been cancelled. Claims 1-3 and 5-19 remain in the

application. Reconsideration and allowance of these claims as now presented is respectfully requested.

#### **Claim Objections**

Claims 1, 8, and 9 stand objected to for the informalities described above with reference to the specification. In view of the foregoing comments, the claim objections should be withdrawn.

#### **Rejection of Claims Under 35 U.S.C. §112**

Claim 4 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 4 has been cancelled to render the pending set of claims in more definite form. The claim rejections under 35 U.S.C. §112 should therefore be withdrawn.

#### **Rejection of Claims Under 35 U.S.C. §102**

Claims 1, 4-9 & 15-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by Villafana (U.S. 6,241,761). Amended Claim 1 of the present application is drawn to an apparatus for directing bypass blood flow having a supply conduit and a delivery conduit, wherein an outer wall of the delivery conduit is formed at the first open end thereof substantially along a plane in angular relationship with a plane parallel to a perpendicular cross-section of the delivery lumen. The angular relationship between such planes is between about 10 and 80 degrees. This angular

relationship is illustrated in Figure 11, wherein end 257 of delivery conduit 234 is disposed along a plane in an angular relationship to a plane parallel to a perpendicular cross-section of delivery lumen 252. Villafana '761 does not teach the presently claimed angular relationship of the open end of the delivery conduit.

As described at page 10 line 27-page 11 line 4, the angled open end provides for relatively easy insertion of the delivery conduit into a respective delivery location, such as a coronary artery, in that little or no arterial manipulation is required by the attending physician in order to insert the delivery conduit into place through an opening formed in the respective coronary artery. In particular, the claimed configuration eliminates the need for additional surgical instruments to dilate the target artery prior to insertion of the delivery conduit. Since no such angular relationship of the open end of the delivery conduit is shown in Villafana '761, the claim rejections based thereon should accordingly be withdrawn.

**Rejection of Claims Under 35 U.S.C. §103**

Claims 10-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable Villafana '761 in view of Davila et al. (U.S. 2003/0065377). The Davila et al. '377 application, however, fails to cure the defects of Villafana '761, as

described above. As such, the claim rejections based upon the combination of Villafana '761 and Davila et al. '377 should be withdrawn.

**Rejection of Claims Under the Judicially Created Doctrine  
of Obviousness-Type Double Patenting**

Claims 1-18 stand rejected under the judicially created doctrine of obviousness-type double patenting over Claims 1-17, 19, 20 & 23 of U.S. Application Serial No. 10/634,200, while Claims 1-12 & 16-18 stand rejected under the judicially created doctrine of obviousness-type double patenting over 1-14, 16, & 17 of U.S. Application Serial No. 10/909,700, with both of such applications being assigned to the same Assignee as in the present application. Terminal Disclaimers have been filed herewith in order to overcome the double patenting rejections based upon the above-cited pending patent applications. Removal of the claim rejections under the judicially created doctrine of obviousness-type double patenting is therefore warranted.

For the foregoing reasons, the claims as now presented are believed to be patentable over the cited prior art, whether taken alone or in combination. Applicants therefore submit that the claims as now pending are

allowable on the merits. An early allowance is respectfully solicited.

Respectfully submitted,

HAUGEN LAW FIRM PLLP

A handwritten signature in dark ink, appearing to read 'Mark J. Burns', with a long horizontal flourish extending to the right.

Date: September 20, 2005

Mark J. Burns, Reg. #46591  
Attorney for Applicant  
1130 TCF Tower  
121 South Eighth Street  
Minneapolis, MN 55402  
Phone: (612) 339-8300